## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Mikio SASAKI et a

Serial No.: 10/608,002

Filed: 06/30/2003

Title: VOICE INTERACTIVE COMPUTER

**SYSTEM** 

Patent No.: 7,640,164

Issued: December 29, 2009

Atty. Dkt.: 11-168-RCE

Commissioner for Patents

Alexandria, VA 22313-1450

Mail Stop: Certificate of Corrections

Date: June 10, 2010

## REQUEST FOR CERTIFICATE OF CORRECTION

Sir:

Applicants hereby request that the above-identified Letters Patent be amended to correct the title of the invention in item (54) on the first page of the patent. Specifically, the title of the invention in the Letters Patent should be corrected to read as:

## (54) VOICE INTERACTIVE COMPUTER SYSTEM

JUN 1 0 2010

No amendment was made to the title of the invention during prosecution. The correct title was provided in the Notice of Allowance mailed on August 14, 2009.

A Copy of the Notice of Allowance of August 14, 2010 is attached as proof that this error was due to a mistake made by the USPTO.

Applicants also request that the attached Certificate of Correction be attached to all copies of the Letters Patent. To facilitate the above request, a copy of the original letters patent is enclosed.

Although it is believed there are no fees due at this time, authorization is hereby given to charge any unforeseen fees to Deposit Account 50-1147.

Respectfully submitted,

David G. Posz Reg. No. 37,701

Posz Law Group, PLC 12040 South Lakes Drive, Suite 101 Reston, VA 20191 (703) 707-9110 Customer No. 23400 Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(Also Form PTO-1050)

# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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PATENT NO.	: 7,640,164						Page _	<u>1</u> of _	_1_
APPLICATION NO	D.: 10/608,00	2							!
ISSUE DATE	: December	29, 2009							
INVENTOR(S)	: Mikio Sas	aki et al.							
It is certifi is hereby corre	ied that an eri ected as show	or appears of the contract of	r errors appe	ear in the at	ove-identifi	ed patent ar	nd that said	Letters P	atent
Title Page	е								
Please co below:	orrect the title	of inventors i	in item (54) c	of the above	-identified L	etters Pater	nt to reflect t	o change	es
		(54) VOICE	INTERACTI	IVE COMPU	TER SYST	EM			
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MAILING ADDRESS OF SENDER (Please do not use customer number below):

Posz Law Group, PLC 12040 South Lakes Drive, Suite 101 Reston, VA 20191

VA 22313-1450.

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Office, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria,



## (12) United States Patent

Sasaki et al.

(10) Patent No.:

US 7,640,164 B2

(45) Date of Patent:

Dec. 29, 2009

## (54) SYSTEM FOR PERFORMING INTERACTIVE DIALOG

(75) Inventors: Mikio Sasaki, Kariya (JP); Ryuichi

Suzuki, Okazaki (JP)

(73) Assignee: Denso Corporation, Kariya (JP)

Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 709 days.

(21) Appl. No.: 10/608,002

(22) Filed: Jun. 30, 2003

(65) Prior Publication Data

US 2004/0006483 A1 Jan. 8, 2004

(30)	Foreign Application Priority Data					
Jul. 4, 2002	(JP)	2002-195904				
Jul. 29, 2002	(JP)	2002-219764				
Sep. 17, 200	2 (JP)	2002-269941				

(51)	Int. Cl.	
	G10L 21/00	(2006.01)
	G10L 15/22	(2006.01)
	A63F 9/18	(2006.01)

See application file for complete search history.

(56) References Cited

#### U.S. PATENT DOCUMENTS

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\$,358,259 A * 10/1994 Best 463/31
Sixes Please correct:
6,044,3 (54) VOICE INTERACTIVE
COMPUTER SYSTEM
COMI OTERSTOTEM
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JP A-UM

#### (Continued)

#### OTHER PUBLICATIONS

Abe et al, "WebMessenger: A New Framework to Produce Multimedia Content by Combining Synthesized Speech and Moving Pictures in the WWW Environment," Proc. Of MMSP, 1999, pp. 611-616.\*

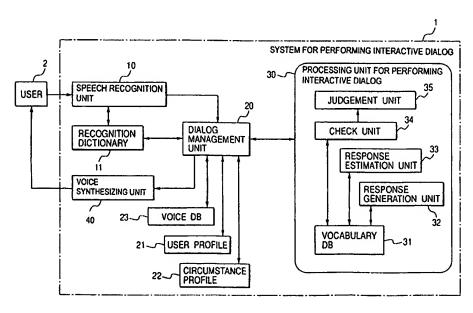
#### (Continued)

Primary Examiner—James S Wozniak (74) Attorney, Agent, or Firm—Posz Law Group, PLC

#### (57) ABSTRACT

The system for performing interactive dialog of the present invention recognizes a question from a user and outputs an answer by a synthesized voice. The system includes; a selection unit for selecting the answer from a database; an evaluation unit for evaluating a dialog between the user and computer and determining whether or not to continue the dialog. The evaluation unit may evaluate a dialog consistency, or dialog circumstance. Further, the selection unit selects and combines on the basis of the determination result the answer with one of a plurality of dialog sentences. The system may further comprises a learning unit for storing a novel answer unknown to the computer, by interrogating the user about the novel answer and further storing the interrogation scenario.

#### 19 Claims, 12 Drawing Sheets



United States Patent and Trademark Office



NAM 1 0 SOLO NOTICE OF ALLOWANCE AND FEE(S) DUE

POSZ LAW GROUP, PLC 12040 SOUTH LAKES DRIVE SUITE 101 RESTON, VA 20191

23400

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**EXAMINER** WOZNIAK, JAMES S ART UNIT PAPER NUMBER

2626 DATE MAILED: 08/14/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608.002	06/30/2003	Mikio Sasaki	11-168 <b>-RCE</b>	8200

TITLE OF INVENTION: VOICE INTERACTIVE COMPUTER SYSTEM

08/14/2009

ſ	APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
L	nonprovisional	NO	\$1510	\$300	\$0	\$1810	11/16/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS REPRESENTED FOR THE PRETURN OF PART BOR THIS FORM PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

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- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.
- II. PART B FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

Complete and send this form, together wi... applicable fee(s), to: Mail Mail Stop ISSUL LEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,002	06/30/2003	Mikio Sasaki	11-168	8200

TITLE OF INVENTION: VOICE INTERACTIVE COMPUTER SYSTEM

APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	11/16/2009
EXAM	INER	ART UNIT	CLASS-SUBCLASS			
WOZNIAK	, JAMES S	2626	704-272000			
Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).      Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.      "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			or agents OR, alternative (2) the name of a single registered attorney or a	3 registered patent attornively, e firm (having as a membagent) and the names of up meys or agents. If no name	era <sup>2</sup>	

ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE	(B) RESIDENCE: (CITY and STATE OR COUNTRY)
Please check the appropriate assignee category or categories (will not b	e printed on the patent):
4a. The following fee(s) are submitted:  ☐ Issue Fee ☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies	<ul> <li>4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)</li> <li>A check is enclosed.</li> <li>Payment by credit card. Form PTO-2038 is attached.</li> <li>The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).</li> </ul>
5. Change in Entity Status (from status indicated above)  a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.	☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).
NOTE: The Issue Fee and Publication Fee (if required) will not be accessinterest as shown by the records of the United States Patent and Traden	pted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in ark Office.
Authorized Signature	Date
Typed or printed name	Registration No.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,002	06/30/2003	Mikio Sasaki	11-168	8200
23400 75	90 08/14/2009		EXAM	INER
POSZ LAW GRO	OUP. PLC	OPAP	WOZNIAK	, JAMES S
12040 SOUTH LA	AEC DDIAE	(2010)	ART UNIT	PAPER NUMBER
SUITE 101 RESTON, VA 201	91	THADEMAN OF	2626 DATE MAILED: 08/14/2009	9

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 709 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 709 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.



Application No.	Applicant(s)
10/608,002	SASAKI ET AL.
Examiner	Art Unit
JAMES S WOZNIAK	2626

Nation of Allowshilling	10/608,002	SASAKI ET AL.		
Notice of Allowability	Examiner	Art Unit		
	JAMES S. WOZNIAK	2626		
- The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this app or other appropriate communication GHTS. This application is subject to	olication. If not include will be mailed in due	ed course, THIS	
1. A This communication is responsive to the Amendment After	Final filed on 8/7/2009.			
2. A The allowed claim(s) is/are 73-79, 81-89, 91-92, and 94 (no.	<u>ow cliams 1-19)</u> .			
<ul> <li>3.</li></ul>	been received. been received in Application No			
<ol> <li>Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).</li> </ol>				
* Certified copies not received:				
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.				
4. A SUBSTITUTE OATH OR DECLARATION must be submining INFORMAL PATENT APPLICATION (PTO-152) which give	s reason(s) why the oath or declarat	S AMENDMENT or Notion is deficient.	OTICE OF	
5. CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.				
(a) including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached				
1)  hereto or 2)  to Paper No./Mail Date				
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date				
Identifying indicia such as the application number (see 37 CFR 1.1 each sheet. Replacement sheet(s) should be labeled as such in the	84(c)) should be written on the drawin ne header according to 37 CFR 1.121(d	gs in the front (not the	back) of	
DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.				
·				
Attachment(s)	5 🗆 N			
<ol> <li>Notice of References Cited (PTO-892)</li> <li>Notice of Draftperson's Patent Drawing Review (PTO-948)</li> </ol>	<ol> <li>5. ☐ Notice of Informal Pa</li> <li>6. ☐ Interview Summary (</li> </ol>	• •		
3. Information Disclosure Statements (PTO/SB/08),  3. The statement of th	Paper No./Mail Date 7. Examiner's Amendm	e		
Paper No./Mail Date4.   Examiner's Comment Regarding Requirement for Deposit	8. 🛛 Examiner's Statemer	nt of Research for Alloy	wanco.	
of Biological Material	9. ☐ Other	It of Neasons for Allov	vance	
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Application/Control Number: 10/608,002

Art Unit: 2626

#### **DETAILED ACTION**

Page 2

## Response to Amendment

- 1. In response to the office action from 5/11/2009, the applicant has submitted an amendment after final, filed 8/7/2009 amending independent claims 73 and 82-83 to incorporate the allowable subject matter previously indicated with respect to previous claim 93 (Office Action from 5/11/2009) (Amendment, Page 11). As these claims now incorporate the claim containing allowable subject matter and all intervening claims, claims 73-79, 81-89, 91-92, and 94 are allowable over the prior art of record for the reasons set forth below.
- 2. In response to amended claim 77 (Amendment, Page 11), the examiner has withdrawn the previous objection directed to minor informalities.
- 3. In response to the cancellation of claim 80 (Amendment, Page 11), the examiner has withdrawn the previous objection directed towards minor informalities. Also, this subject matter has been incorporated into claim 73 with the informalities corrected, thus precluding any type of related objection of this claim.
- 4. In response to amended claim 82, which eliminates the claim language not described in the originally filed specification (i.e., "computer program product") and incorporates "computer"

Application/Control Number: 10/608,002

Art Unit: 2626

readable memory medium" which is supported by the specification (for example, Page 39), the examiner has withdrawn the previous 35 U.S.C. 112, first paragraph rejection.

### Allowable Subject Matter

- 5. Claims 73-79, 81-89, 91-92, and 94 are allowable over the prior art of record.
- 6. The following is an examiner's statement of reasons for allowance:

With respect to independent claims 73, 82, and 83, the prior art of record fails to explicitly teach or fairly suggest, either individually or taken in combination, a respective shiritori word chain game system, computer readable memory medium, or method utilizing a speech recognizer and featuring a means for allowing a system to generate a spoken word or phrase output that continues the game in response to determining that a user has spoken an utterance which breaks a shiritori game rule (i.e., the first letter(s) of the user's spoken word do not match the last letter(s) of the computer's previous voice output), wherein the word for continuing a word chain game after a user has uttered a rule-breaking utterance is selected based on an impression of a user determined based on a previous step in the interactive game dialog. The examiner notes that although Patinkin et al (WO 01/91466 A2) does teach continuing a game after a user enters a rule breaking input (Page 31, Lines 20-28; and Figs. 4A and 4C) and Miyasato (JP2001-190930) teaches the selection of user difficulty levels (Page 18), none of the prior art of record, either individually or taken in combination, teaches that a computer shiritori game system selects the continuing word after a user's rule-breaking input based on a impression of a user determined based on a previous game dialog step. Thus, claims 73, 82, and 83 are

Art Unit: 2626

allowable over the prior art of record. Dependent claims 74-79, 81, 84-89, 91-92, and 94 further limit allowable independent claims, and thus, are also allowable over the prior art of record by virtue of their dependency.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached at (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/James S. Wozniak/
Primary Examiner, Art Unit 2626